## Claims

[c1] 1.A scanning method by using a paper feed scanner, wherein the paper feed scanner comprises a sheet feeder attached thereon, a scanning head and a transmission mechanism, with the transmission mechanism driving the scanning head to scan a paper sheet sent from the sheet feeder to a scanning window of the scanner, the method comprising:

a)making the paper sheet go forward a first distance into the scanning window;

b)the scanning head scanning a portion of the paper sheet;

c)the transmission mechanism driving the scanning head to move a second distance in a first direction, wherein the second distance is smaller than the first distance;

d)repeating the steps b) and c) until the scanning head completely scans a plurality of portions of the paper sheet in the scanning window;

e)repeating the steps a), b), c) and d) except that the scanning head moves in a second direction opposite to the first,

f) repeating the steps a), b), c), d) and e), the movement of the scanning head alternating between a first and a second direction, until the scanning head completely scans the paper sheet to be scanned.

[c2] 2. The method of claim 1, wherein the scanning head moves back and forth to scan the paper sheet.

[c3] 3.The method of claim 1, wherein the scanning head moves in one way to scan the paper sheet.

[c4] 4.The method of claim 1, wherein the sheet feeder comprises a conveying guide, and a plurality of rollers arranged on the conveying guide and in contact with each other to make a pair of rollers, and wherein the paper sheet is transmitted along the conveying guide by rotating the pair of rollers.

[c5] 5.The method of claim 1, wherein the sheet feeder comprises a scanning window through which the scanning head scans the paper sheet, and the length of the scanning window in the moving direction of the paper is larger than or equal to the first distance.

[c6] 6.A scanning method by using a sheet feed scanner, the method comprising:
a)making the paper sheet go forward a first distance into the scanning window;
b)the scanning head in an original position scanning a portion of the paper sheet;
c)the scanning head moving a second distance, wherein the second distance is smaller than the first distance; and
d)repeating the steps b) and c), until the scanning head completely scans a plurality of portions of the paper sheet in the scanning window.

[c7] e)the scanning head returning to the original position, and repeating steps a), b), c) and d) until the entire paper sheet is scanned,
7.The method of claim 6, wherein the second distance is smaller than the first distance.

[c8] 8.A scanning method in which a scanning head scans a paper sheet located in a scanning window, the scanning method comprising:
a)making the paper sheet go forward a first distance;
b)the scanning head scanning a portion of the paper sheet;
c)the scanning head moving a second distance in a first direction, wherein the second distance is smaller than the first distance;
d)repeating the steps b) and c), until the scanning head completely scans a plurality of the portions of the paper sheet in the scanning region; and
e)repeating the steps a), b), c) and d) except that the scanning head moves in a second direction opposite to the first,
f) repeating the steps a), b), c), d) and e), the movement of the scanning head alternating between a first and a second direction, until the scanning head completely scans the paper sheet to be scanned.

[c9] 9. The method of claim 8, wherein the scanning head moves back and forth to scan the paper sheet.

[c10] 10.The method of claim 8, wherein the scanning head moves in one direction to scan the paper sheet.